

See

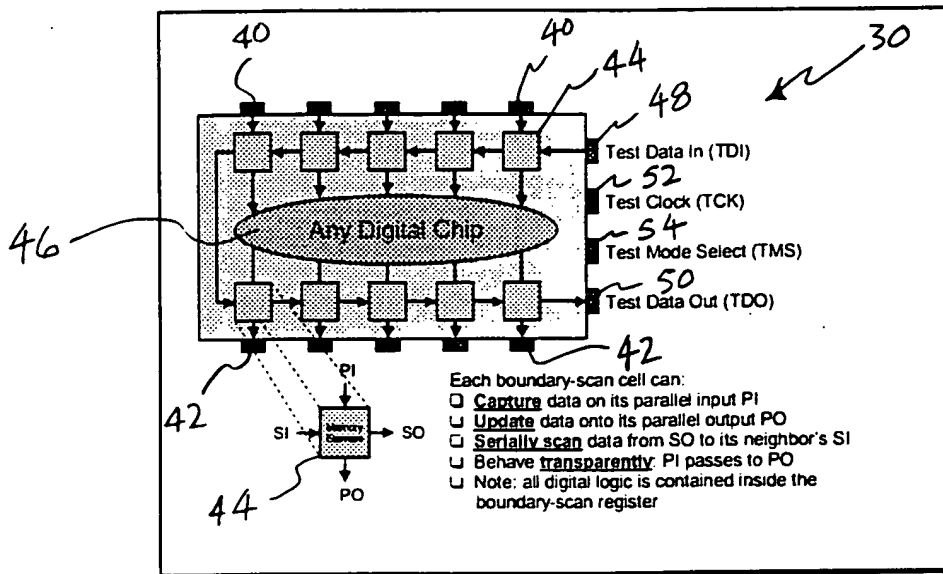


Figure 2: Principle of Boundary-Scan Architecture
 1 (PRIOR ART)

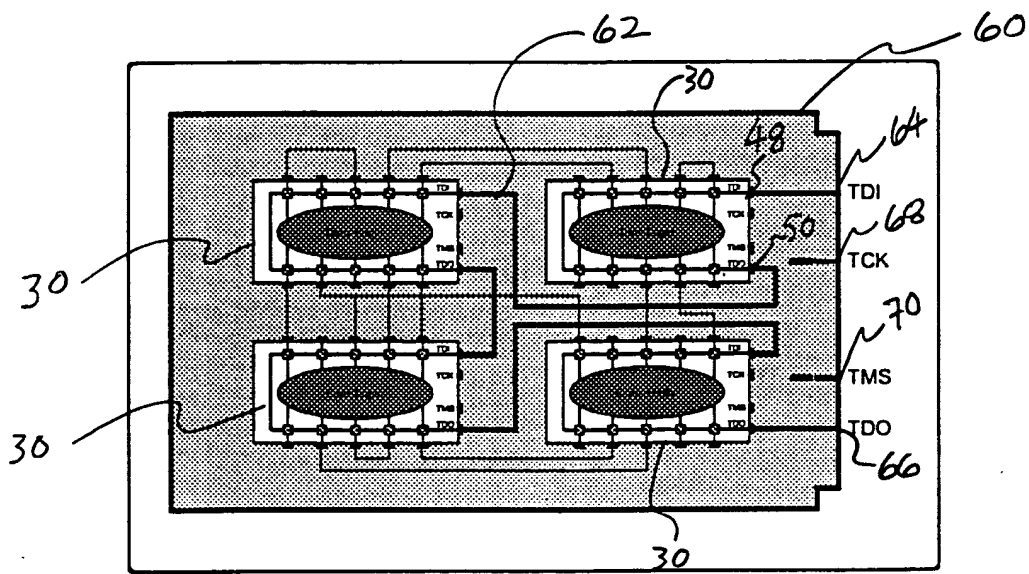


Figure 1: [Using the Boundary Scan Path]
 2 (PRIOR ART)

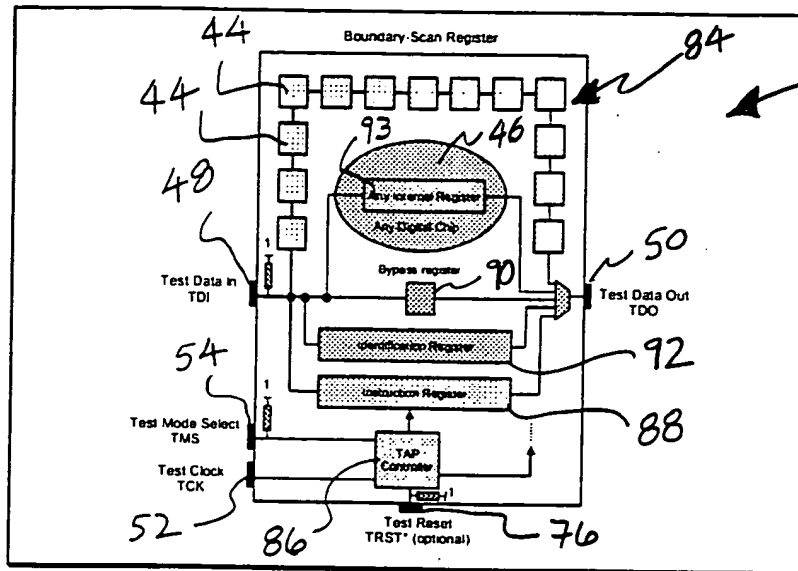


Figure 8: [IEEE 1149.1 Chip Architecture]
3 (PRIORITY)

FIGURE 8: THE INSTRUCTION REGISTER

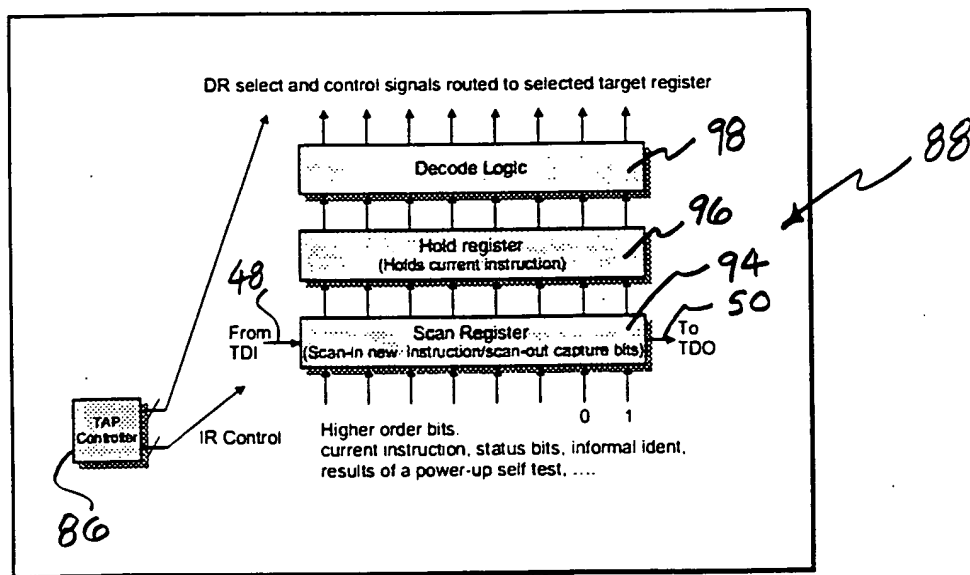


Figure 8: [The Instruction Register]
4 (Prior Art)

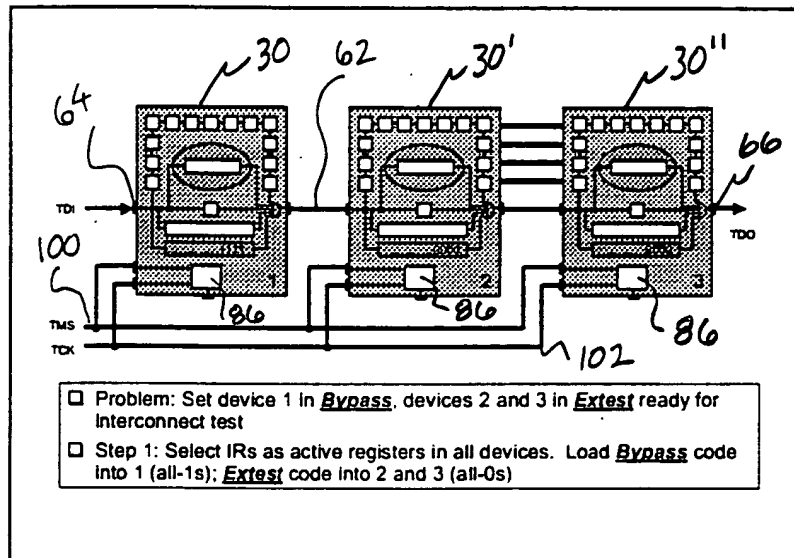


Figure 10: Using the Instruction Register — Step 1
 5 (PRIOR ART)

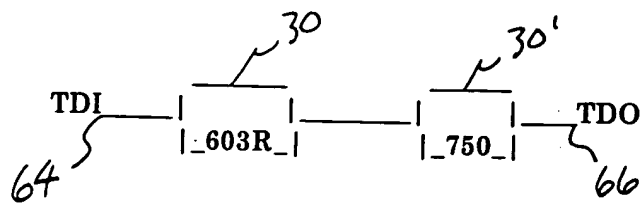


Fig. 26

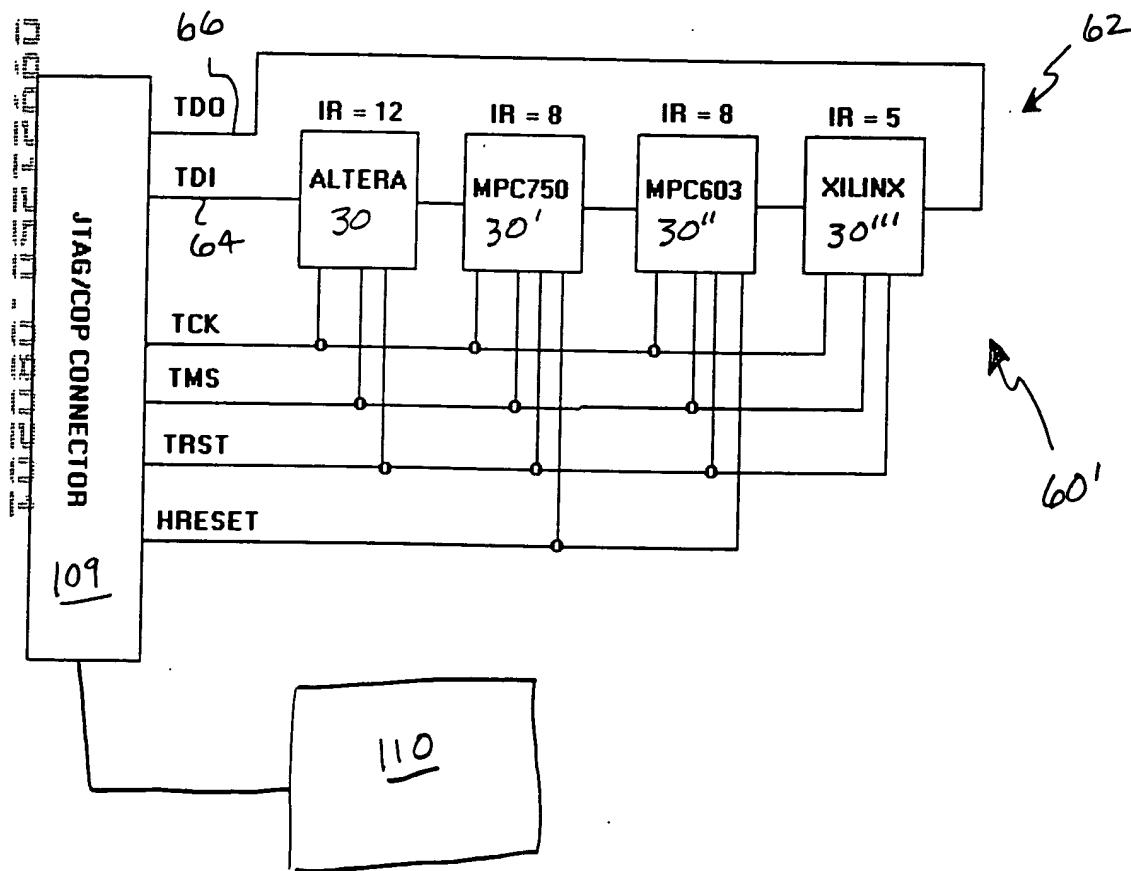


Fig. 27A

170 - couple emulator to scan chain

172 - obtain topology of scan chain

174 - Automatically determine topology!

176 - Select one device within scan chain

Generate Selection Instruction

Send Selection Instruction

182 - Place an other device within the scan chain into BYPASS mode

Generate BYPASS instruction

Send BYPASS Instruction

188 - Send emulation instructions to the scan chain

190 - place the one device into Data mode

192 - Format emulation instructions to compensate for other device(s)!

Fig. 7B

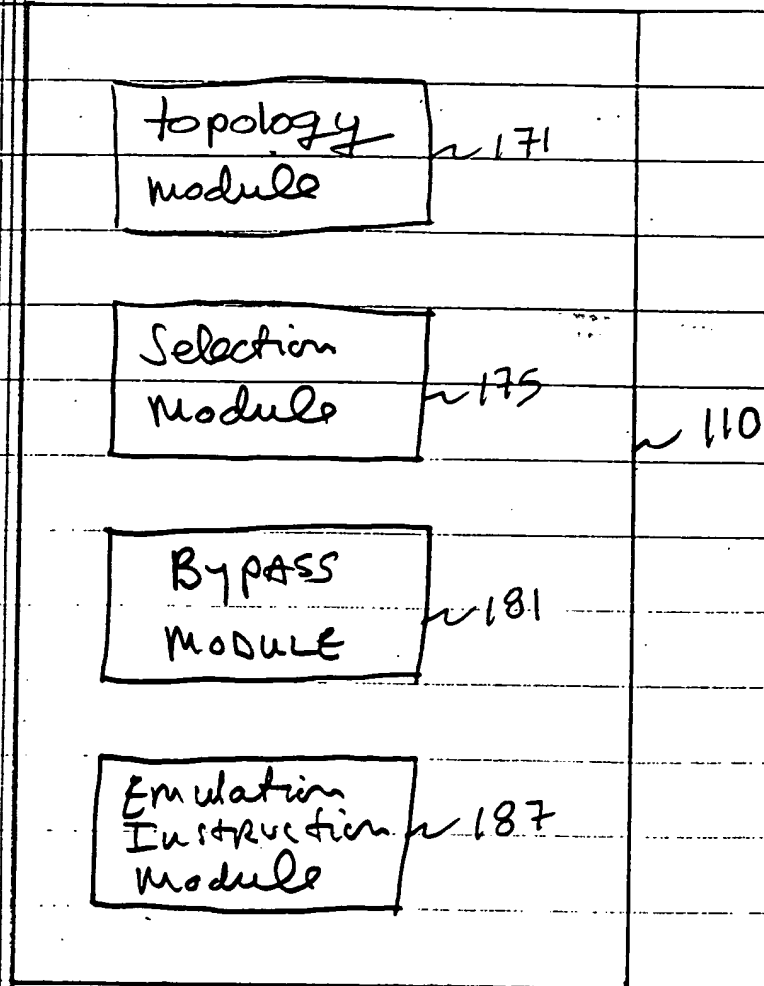


Fig. 7C

The screenshot shows the 'visionXTreme Emulator Tool' window with a menu bar (File, Components, Help) and a toolbar. The main area displays three device slots: MPC750 (8), XC4013XLA (3), and MPC107 (8). Handwritten annotations '4 30', '4 30', and '2 30' are present. Below the slots are input fields for 'Device Number 0x', 'Device Number', 'Number of Devices' (set to 3), and 'Total IR Bits' (set to 19). A 'Device Catalog' window is open in the foreground, displaying a table of devices and their properties.

Part Number	Part Type	Instruction Register	IDCODE
LATTICE	MACH4-256	5	00000000
XILINX	XC4013XLA240	3	00000000
ALTERA	EPM719255160	10	3498798345
POWERPC	MPC8260	8	00000000
POWERPC	MPC750	8	00000000
POWERPC	MPC107	8	00000000

Buttons for 'Close', 'Insert', 'Delete', and 'Create' are visible on the right side of the Device Catalog window.

~ 200

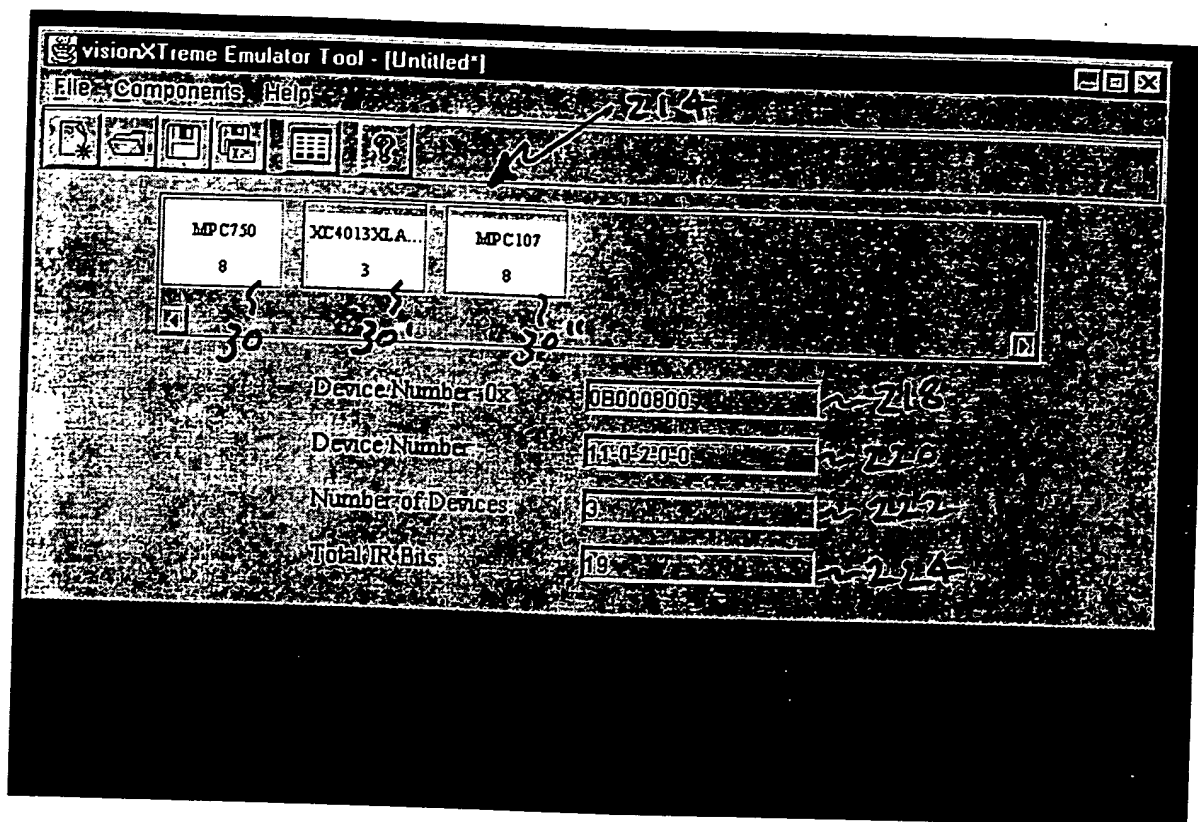


Fig. 811

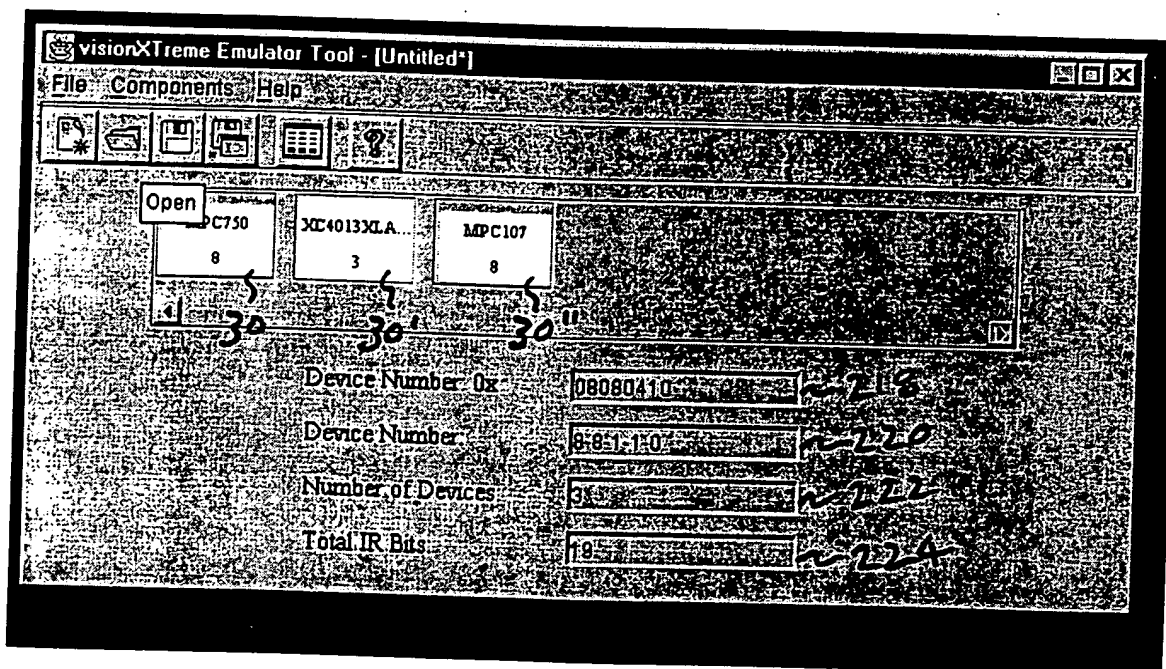


Fig. 812